



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,422	12/19/2000	Shoupu Chen	81754RRS	5111

7590

07/29/2004

Patent Legal Staff  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650-2201

EXAMINER
----------

DESIRE, GREGORY M

ART UNIT	PAPER NUMBER
----------	--------------

2625

DATE MAILED: 07/29/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/740,422

Applicant(s)

CHEN ET AL.

Examiner

Gregory M. Desire

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 15-23 is/are allowed.
- 6) ☒ Claim(s) 10 and 24 is/are rejected.
- 7) ☒ Claim(s) 11-14 and 25-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to communication filed 5/17/04.

#### ***Response to Amendment***

2. Applicant's arguments see page 7 lines 5-20, filed 5/17/04, with respect to 1, 3-4, 6, 8, 15, 17-18, 20 and 22 have been fully considered and are persuasive. The 35 USC 103 of claims 1-9 and 15-23 have been withdrawn. However, arguments regarding claims 10 and 24 have been fully considered but they are not persuasive and are thus maintained. See response to argument below.

#### ***Response to Arguments***

3. Applicant argues (page 16 lines 16-20) Swain's blurring the image does not disclose finding a skin color region. This argument is not persuasive because it is the position of the examiner Swain does find skin color region (note col. 4 lines 10-20). The blurring step is used for locating eye regions. However, consequence of blurring is dark region and light region. The examiner interprets the consequence of a light region is finding a skin color region. Also finding facial region, which include a skin, and nonskin color region meets the limitation finding a skin color region.
4. Applicant argues (page 16 lines 21-22) Swain fails to describe the step of detecting iris color pixels. This argument is not persuasive because it is the position of the examiner Swain does detect iris color pixels (note col. 4 lines 45-64). The examiner

interprets the process of segmenting the eye detect iris color pixels. This process is performed by thresholding. Pixel values between 0 and 255 intensity values are considered irises. Non-white pixels are considered as colored images. Thus, iris color pixels detected.

5. Applicant argues (page 17 lines 5-6) there is nothing in Cham et al that suggest the use of Bayes Model. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Cham system detects objects such as human figure similar to Swain and Cham provides an improved method for refining the state of models of object recognition of complex data (note Cham, col. 2 lines 12-20).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. 10 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swain (6,381,345) in view of Cham et al.

Regarding claims 10 and 24 Swain discloses,

Finding a skin color region (note fig. 1 block 11 and col. 4 lines 12-15) (Blurring of the image finds skin region);

Detecting iris color pixels in the skin colored region (note coll. 4 lines 45-60, segmenting the eyes can detect iris color pixel in the facial skin region)

Locating eye positions upon the detected iris color pixel (note fig. 39 and col. 5 lines 1-15). Extracting eye parameters for iris pixels locates eye positions.

Swain is silent using Bayes modes to detect iris pixels. However, Cham teaches application of Bayes model to determine values using probability density function (note fig. 5a in connection with col. 7 lines 19-30). Therefore it would have been obvious to one having ordinary skills in the art to teach the application of Bayes Model in the system Swain. Swain detects iris color pixels in a facial region. Cham in the same field of endeavor includes the application of Bayes model, providing an improved method for refining the state of models of object recognition of complex set of data (note col. 2 lines 12-20).

***Allowable Subject Matter***

8. Claims 1-9 and 15-24 are allowed.

9. Claims 11-14 and 25-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (703) 308-9586. The examiner can normally be reached on M-F (8:30-6:00) Second Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory M. Desire  
Examiner  
Art Unit 2625

G.D.  
July 23, 2004



**BHAVESH M. MEHTA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**